

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2003P07721WO	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/006624	International filing date (<i>day/month/year</i>) 18.06.2004	Priority date (<i>day/month/year</i>) 09.07.2003
International Patent Classification (IPC) or national classification and IPC F01D5/14		
Applicant SIEMENS AKTIENGESELLSCHAFT		

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.
3.	This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4.	This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input checked="" type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-13 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 1-20 _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* _____ received by this Authority on _____
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/6-6/6 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	4, 6-10, 12	YES
	Claims	1-3, 5, 11, 13-20	NO
Inventive step (IS)	Claims		YES
	Claims	1-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

1. This report makes reference to the following documents:

D1: US 4 714 407 A (RUBINI ALFRED ET AL) 22
December 1987

D2: US 3 745 629 A (PASK G ET AL) 17 July 1973

D3: US 2 738 950 A (PRICE NATHAN C) 20 March 1956

D4: US 2003/031564 A1 (KUSHIDA TSUNEHARU ET AL)
13 February 2003

D5: US 2004/091353 A1 (SHAHPAR SHAHROKHY ET AL)
13 May 2004

2. The present application fails to meet the requirements of PCT Article 33(1) because the subject matter of claims 1 and 3 is not novel within the meaning of PCT Article 33(2).

- 2.1 D1 discloses a (the references in parentheses are to D1):

turbine blade (36) having a blade height, a rotor side end and a stator-side end, a leading edge and a trailing edge, and a suction side and a pressure side and being designed for use relative to a

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>general direction of flow, said turbine blade (36) being negatively sloped in the direction of flow at its rotor-side end and at its stator-side end (figure 8).</p> <p>The subject matter of claim 1 is therefore not novel.</p> <p>2.2 D2 discloses (the references in parentheses are to D2):</p> <p>turbine blade (26) having a blade height, a rotor side end and a stator-side end (30, 32), a leading edge and a trailing edge, and a suction side and a pressure side (36, 34) and being designed for use relative to a general direction of flow, said turbine blade being sloped in a radial direction relative to the direction of flow at its rotor-side end (30) and at its stator-side end (32) towards the pressure side (34) (figures).</p> <p>The subject matter of claim 3 is therefore not novel.</p> <p>2.3 D3 and D4 also disclose the combination of features in claim 1.</p> <p>3. Dependent claims 2 and 4 to 20 do not appear to contain any features which, in combination with the features of any claim to which they refer, meet the PCT requirements for novelty and inventive step because these features are already</p>

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

known from D1 to D4 or because these features lie within the scope of what a person skilled in the art routinely does on the basis of familiar considerations;

See, for example:

D1, figure 8 for claims 2, 11, 13, 14 and 19;

D2, figures for claims 5 and 15 to 20;

D3, in particular, the combination of figures 1, 2 and 4 for claims 2, 4, 5, 8, 10 to 15, 17, 19 and 20.

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Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
US 2004/091353	13.05.2004		03.09.2002

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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D5 appears to disclose at least the combination of features in claims 1-7, 10, 11, 13-15, 17 and 19.